

Public Health Response to the 2009 Novel H1N1 Influenza

October 27, 2009
Director Janet Olszewski
Michigan Department of Community Health

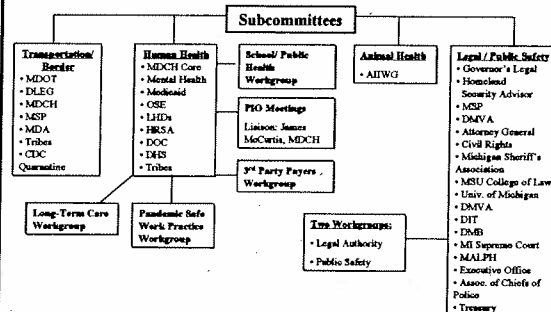


Pandemic Influenza Coordinating Committee (PICC)

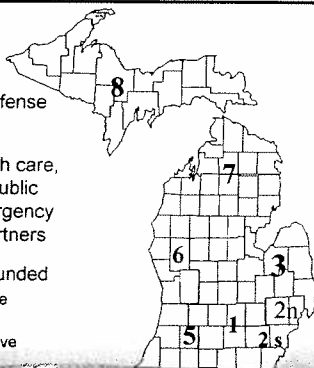
- Concept presented in September 2006
- Purpose of the PICC is to ensure:
 - Pandemic influenza plans are being developed
 - Plans are coordinated
 - Plans involve all necessary areas
- Encompasses all state agencies



Pandemic Influenza Coordinating Committee (PICC) - Steering Group - (A representative from each State of Michigan Department and Tribal)

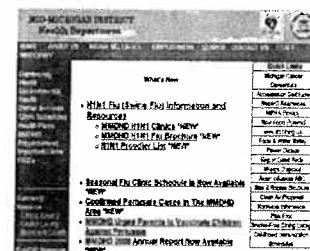


- Regional Bio-Defense Networks
- Coordinate health care, state and local public health, and emergency management partners
- 100% federally funded
 - CDC Cooperative Agreement
 - HRSA Cooperative Agreement



Preparedness - Local "All Emergencies are Local"

- All 45 local health departments:
 - Health Officer with legal authorities
 - Medical Director
 - Emergency Preparedness Coordinator
 - Immunization Staff
 - Communicable Disease Staff
 - Coordination of Plans
 - Partnerships
 - Emergency Management
 - Businesses
 - Community/Organizations
 - Schools
 - Health care



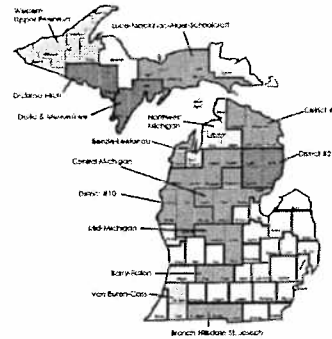
2009 Novel H1N1 Influenza Response Efforts

Local Public Health Perspective

Kimberly Singh, Health Officer
Mid-Michigan District Health Department



Michigan Local Health Departments



The Public Health Code



- 1978 Michigan Public Health Statutes were enacted into law as P.A. 368 and amended
 - Provides comprehensive, broad legal authority at LHD level



Michigan's 45 Local Health Departments (LHDs) are on the Frontline of H1N1 Planning Response Efforts

- Hospitals/Health Care Providers
- Schools
- General Public
- Other Community Partners



Key Planning and Response Activities – Health Care Providers

- Guidelines provided on use of antivirals
- All must separately enroll as H1N1 vaccinators
- All vaccine orders coordinated through LHD



Key Planning and Response Activities – Schools



- Basic prevention (community mitigation) messages for staff and parents
- Guidance on closure/dismissal
- Guidance on cleaning and how long to stay home if ill

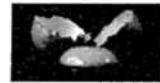


Key Planning and Response Activities – Mass Vaccination Clinics

- Unprecedented public health effort
- Each LHD approach may vary slightly depending on community
- Shortage of vaccine huge obstacle

LHDs Increasingly Fragile

- Demand for services increasing as economy worsens
- State funding cuts (Local Public Health Operations, Medicaid, Healthy Michigan Funding)
- Federal funding inconsistent



National Association of County and City Officials (NACCHO)

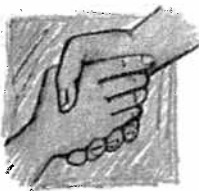
- According to a 2008 survey, more than 1/2 of LHDs laid off employees or lost through attrition
- In Michigan 90% of LHDs affected by cuts in staff
- First half of 2009, LHDs lost approx. 8,000 staff in 6-month period

Summary

- LHDs have a legal responsibility to protect the public's health
- Every LHD in MI is working on overload



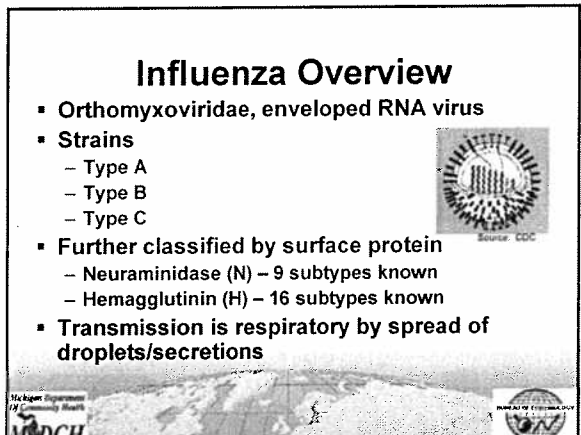
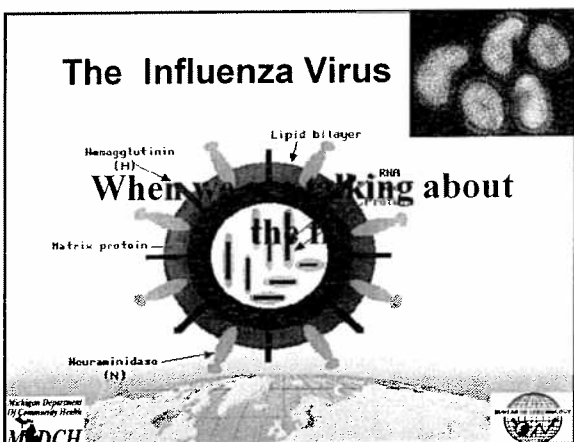
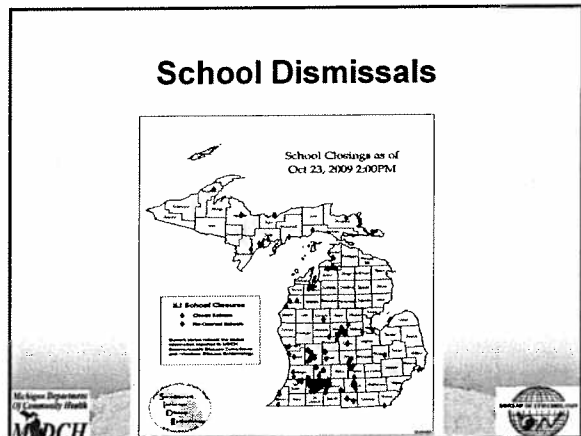
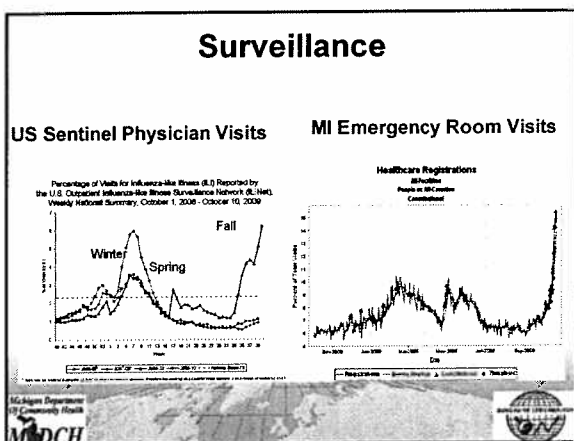
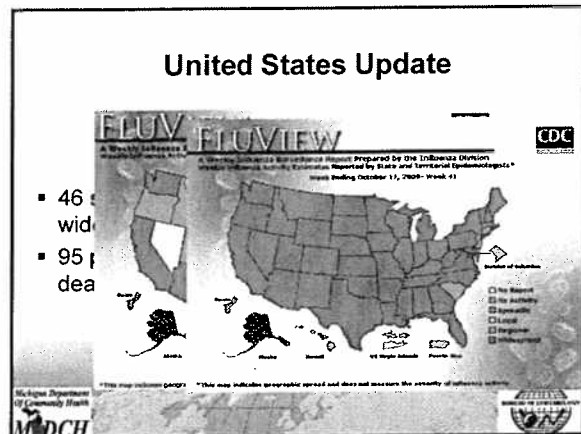
LHDs Need Your Support

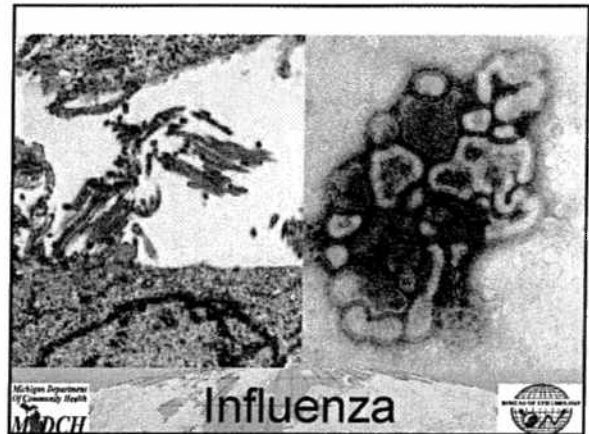


- A comprehensive, competent local public health system is not an accident
- We need your support to assure an adequate local public health system

2009 Novel H1N1 Influenza

Situational Update- Michigan
October 27, 2009





Seasonal Influenza- Annual Impacts

US

- Average 36,000 deaths/year
- Average 226,000 hospitalizations/year

MI (based on 3.3% US population)

- 1,188 deaths/year
- 6,600 hospitalizations/year



2009 Novel Influenza A H1N1

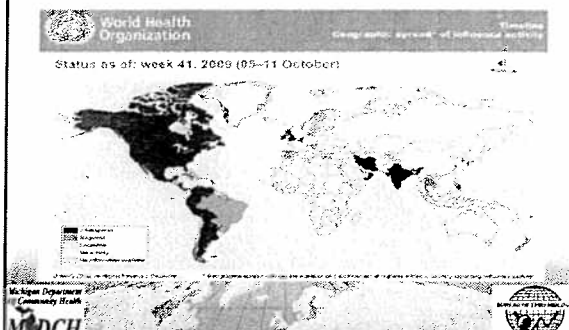
It is a new influenza virus thus the general population has little/no immunity

This new virus replicates in humans and cause disease

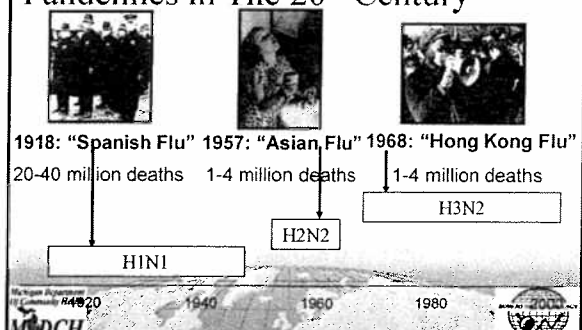
This new virus transmits efficiently from one human to another

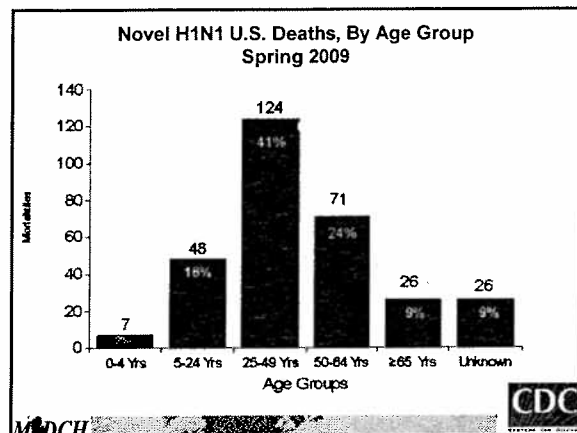
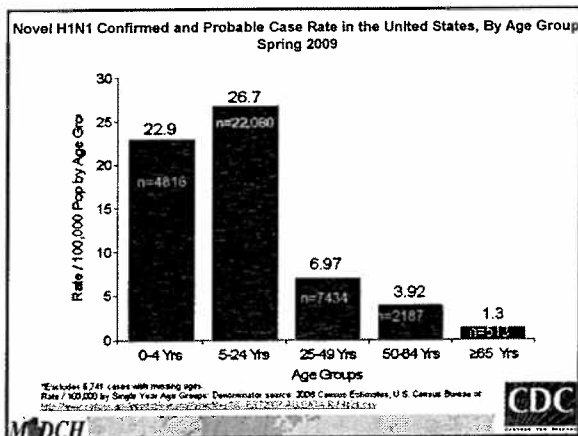


Influenza Pandemic



Circulating Influenza Strains and Pandemics in The 20th Century





**H1N1 Response Pillars
Federal, State and Local Levels**

- Surveillance
- Mitigation
 - Prevention
 - Early Detection
 - Isolation
 - Treatment
- Vaccination
- Communication

Michigan Department of Community Health
MDCH



Vaccination- nH1N1

- Novel influenza A (nH1N1) vaccines produced similarly as seasonal vaccine
- Licensure of nH1N1 vaccine based on same standards used for seasonal flu vaccines
- None of the nH1N1 vaccines licensed contain an adjuvant

Michigan Department of Community Health
MDCH

Vaccination Influenza Target Group Comparison	
2009 H1N1 Initial Target Groups	Medical risk conditions similar for seasonal and 2009 H1N1:
Pregnant women	– Children 6 mo-18 years on long-term aspirin therapy
Persons aged 6 mo-24 yrs	– Persons with the following conditions or disorders:
Persons aged 25-64 yrs with a medical condition* that puts them at higher risk [‡]	– chronic pulmonary (including asthma)
Health care personnel and emergency medical services personnel	– Cardiovascular (except hypertension)
Persons living with or caring for infants less than 6 mo of age	– Renal or hepatic
	– Neurologic or neuromuscular
	– Hematologic or metabolic (including diabetes)
	– Immunosuppression (medications or HIV)
[‡] Expanding vaccination beyond initial target groups: When state and local health officials determine vaccine is in greater supply, vaccinate 1) healthy persons 25-64 yrs of age and then 2) persons 65 years of age and older	

Michigan Department of Community Health
MDCH

Antivirals

- New guidance (September 8, rev Oct 19)
- Treatment for patients with influenza and at high risk
 - People without severe illness and/or are not at high risk should not receive antiviral medication
 - Clinical judgment is important factor
 - Lab testing generally reserved for hospitalized patients
 - Chemoprophylaxis is discouraged

Antiviral Resistance

- To date, 14 resistant nH1N1 influenza viruses detected in US
- All of these viruses show the same H275Y mutation
 - confers resistance to the antiviral oseltamivir
 - but not to the antiviral zanamivir

Communications

Primary federal websites

- www.flu.gov
- <http://www.cdc.gov/h1n1flu/>

Primary state website

- michigan.gov/flu

The screenshot shows the Michigan Department of Community Health website. The header includes the MDCH logo and navigation links. The main content area is titled 'Influenza' and features a section for 'Flu Vaccine: For Everyone, Every Year' with buttons for 'Novel H1N1 Influenza', 'Seasonal Influenza', 'Avian Influenza', and 'Pandemic Influenza Planning'. Below this is a section titled 'How Are Novel H1N1, Seasonal, Pandemic, and Avian Influenza Different?' with a link to 'Novel H1N1 Influenza (referred to as "swine flu")'. The right sidebar contains a 'Quick Links' section with various links like 'News Releases', 'Careers & Internships', and 'Finding Free or Low-Cost Health Care'.

QUESTIONS?

Michigan Department of Community Health*

www.michigan.gov/flu

US Department of Health and Human Services

www.flu.gov

*The Michigan Department of Community Health's website contains links to all local health departments within Michigan.

Frequently Asked Questions about Influenza Vaccines: Seasonal Flu and 2009 H1N1 (Influenza A) Vaccines October 19, 2009

What is the single best way to stay protected against the flu virus?

The influenza vaccine is the single best way to protect against the flu. However, covering your coughs and sneezes and frequently washing your hands will also help keep you healthy.

How many flu vaccines do I need this year?

You should receive 2 different flu vaccines this year:

1. The seasonal vaccine, which will protect you from getting the seasonal flu viruses
2. The 2009 H1N1 vaccine, which will protect you from getting 2009 H1N1 influenza (commonly called the "swine flu")

Seasonal and 2009 H1N1 flu vaccines protect against different flu viruses. It is important to get both vaccines to be protected this flu season.

How many flu vaccines does my child need this year?

Children should receive both flu vaccines this year:

1. The seasonal vaccine, which will protect your child from getting the seasonal flu virus
2. The 2009 H1N1 vaccine, which will protect your child from getting the 2009 H1N1 virus (commonly called the "swine flu")

Children 6 months through 9 years of age will need 2 doses of the 2009 H1N1 flu vaccine. These 2 doses should be separated by 4 weeks. Persons 10 years of age and older will need just 1 dose. Some children may need 2 doses of seasonal flu vaccine, too. Contact your health care provider or local health department for more information.

I've heard that certain groups of people should receive the 2009 H1N1 vaccine first. Who are they and why?

We expect there will be enough 2009 H1N1 vaccine for everyone who wishes to be vaccinated. However, certain people are more likely to be affected by the disease and have serious complications. Therefore, it is important that these people be given the vaccine first. This includes:

1. **Pregnant women** because they are at higher risk of complications and can potentially provide protection to infants who cannot be vaccinated;
2. **Household contacts and caregivers for children younger than 6 months of age** because younger infants are at higher risk of influenza-related complications and cannot be vaccinated. Vaccination of those in close contact with infants younger than 6 months old might help protect infants by "cocooning" them from the virus;
3. **Healthcare and emergency medical services personnel** because infections among healthcare personnel have been reported and this can be a source of infection for

Frequently Asked Questions about Influenza Vaccines: Seasonal Flu and 2009 H1N1 (Influenza A) Vaccines

October 19, 2009

vulnerable patients. Also, increased absenteeism in this population could reduce healthcare system capacity;

4. All people from 6 months through 24 years of age

- **Children from 6 months through 18 years of age** because cases of 2009 H1N1 influenza have been seen in children who are in close contact with each other in school and day care settings, which increases the likelihood of disease spread, and
- **Young adults 19 through 24 years of age** because many cases of 2009 H1N1 influenza have been seen in these healthy young adults. They often live, work, and study in close proximity, and they are a frequently mobile population; and,

5. Persons aged 25 through 64 years who have health conditions associated with a higher risk of complications from influenza.

Why aren't people age 65 years and older in the initial target groups for H1N1?

Currently, the majority of 2009 H1N1 flu cases are in people under 50 years of age and the average age of hospitalization for 2009 H1N1 flu is 37 years of age. Scientists believe that people over 50 may have some immunity to 2009 H1N1 influenza.

2009 H1N1 flu seems to be affecting younger persons more than the elderly, so CDC has not recommended vaccinating people age 65 years and older, initially. However, CDC expects eventually to have enough vaccine for anyone who wants it. People age 65 years and older should be able to get vaccinated if they want to be.

Is the 2009 H1N1 vaccine safe?

Yes, the 2009 H1N1 vaccine is made and tested using the same processes as the seasonal flu vaccine. Millions of doses of seasonal flu vaccine have been distributed every year for many years. Seasonal flu vaccines have a long and well-established safety record. As with all vaccines, the U.S. Centers for Disease Control and Prevention (CDC) are closely watching for any side effects associated with both seasonal and 2009 H1N1 vaccines. Vaccine safety is always monitored as part of any vaccination program.

Does 2009 H1N1 vaccine contain thimerosal?

Some of the 2009 H1N1 vaccine contains thimerosal, and some doesn't. The goal of the vaccination program is to have enough doses to give to everyone who wants the vaccine. In order to achieve that, the majority of the 2009 H1N1 flu vaccine will come in multi-dose vials. It will need to contain a preservative (thimerosal) so vaccine from the same vial is not contaminated. However, some vaccine will be packaged in single-dose syringes or nasal sprayers. Vaccine packaged in



Frequently Asked Questions about Influenza Vaccines: Seasonal Flu and 2009 H1N1 (Influenza A) Vaccines October 19, 2009

that way will not need to contain a preservative (thimerosal), and can be used to vaccinate young children and pregnant women.

Thimerosal has been used since the 1930s to prevent contamination of vaccines and other medical products. Current scientific research reviewed by CDC, the MDCH, and national health organizations shows no evidence of harm caused by small amounts of thimerosal in vaccines, beyond possible minor reactions like redness and swelling at the injection site.

When should I get the vaccines?

Both vaccines are available now. The sooner you get the vaccines the sooner you will be protected from getting influenza. Get vaccinated with seasonal flu vaccine now. The first doses of 2009 H1N1 vaccine have been targeted to high risk persons (see above.) In the near future, there will be enough 2009 H1N1 vaccine available for anyone wanting to receive it.

Can I get both vaccines at the same time?

Yes, but it depends on the kind of vaccine. **Flu shots** (seasonal and 2009 H1N1) can be given at the same time. A flu shot can also be given with nasal flu vaccine. But both nasal vaccines **CANNOT** be given at the same time. If nasal vaccine is preferred, the doses should be separated by at least 4 weeks.

Can anyone get nasal flu vaccine?

No. Only healthy, persons 2 through 49 years of age who are not pregnant can receive nasal flu vaccine.

Are there any side effects to the 2009 H1N1 influenza vaccine?

The most common side effects include soreness, redness, or swelling where the shot was given, fainting (mainly adolescents), headache, muscle aches, fever, and nausea. If these problems occur, they usually begin soon after the shot and last 1-2 days. Runny nose and headache may happen after getting nasal flu vaccine. Life-threatening allergic reactions to vaccines are very rare.

Can flu vaccines give me the flu?

No. The viruses in both flu vaccines – seasonal and 2009 H1N1 - cannot cause disease. Flu shots contain inactivated or killed viruses. If you get nasal flu vaccine, the virus is live but weakened, so it can't grow in your lungs and cause illness.

Sometimes people think that they may have gotten the flu from flu vaccine. Flu vaccinations are usually done at the same time of year when cold and other viruses are circulating so a cold or other illness could be mistaken for the flu. Some people may get a mild fever or have muscle aches for a



**Frequently Asked Questions about Influenza Vaccines:
Seasonal Flu and 2009 H1N1 (Influenza A) Vaccines**
October 19, 2009

short time right after being given flu vaccine. This does not mean you have gotten flu from the vaccine. Repeated studies have shown that flu vaccines do not cause illness.

How much does the vaccine cost?

Seasonal flu vaccine is covered by many health insurance plans and by the Vaccines for Children program for children under 19 years of age who are on Medicaid, uninsured, underinsured, and Native American or Alaskan native. There may be a fee for administration.

The 2009 H1N1 vaccine is free for everyone. There may be an administration fee charged to you or your insurance company by your medical provider.

Where can I get the vaccines?

Contact your health care provider or local health department to receive the influenza vaccines. You can also check the Michigan Department of Community Health web site at www.michigan.gov/flu or at www.flu.gov for more information.

A Healthy You, Promotes Good Health

ARE YOU SICK? STAY HOME!

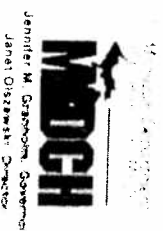
- When you are sick or have flu symptoms, stay home, get plenty of rest, & check with a health care provider as needed.
- Remember: Keeping your distance from others may protect you or another from getting sick.

Common symptoms of the flu include:

- ! Fever (usually high)
- ! Headache
- ! Extreme Tiredness
- ! Cough or Sore Throat
- ! Runny or Stuffy Nose
- ! Muscle Aches
- ! Nausea, vomiting, and diarrhea, (much more common among children than adults)
- ! Duration of Flu: 3-10 days usually



Still Contagious? You can spread the flu to others before your symptoms start & for another three to four days after your symptoms appear.



Office of Public Health Preparedness
Healthy You! Campaign



the flu

Information for Schools on the Flu

What is influenza or "the flu"?

The flu is an infection of the nose, throat and lungs. It is spread easily by coughing, sneezing or talking. Most people are sick for about a week and then feel better. Unfortunately, people can get very sick from the flu and some people may die. This fall, an additional flu virus - the novel H1N1 (swine) flu virus - is expected to spread.

What are the symptoms of the flu?

People with the flu develop a high fever, headache, dry cough, sore throat and aching muscles very quickly. Children may have stomach problems such as diarrhea and vomiting. Some people with the flu have NO symptoms at all and can still spread flu to others.

How can I protect my child from the flu?

Flu vaccine is the single best way to protect against the flu. There will be two different flu vaccines available this fall. It is important to make sure children (and some adults) get both kinds. Seasonal flu vaccine is or will be available soon. H1N1 2009 vaccine is expected to be available in the late fall. Seasonal flu vaccine will not protect against novel H1N1 flu. Protect your family by getting them vaccinated as soon as possible.

Why are children at high risk for the flu?

Children have the highest chance of getting sick from the flu and often spread the germs throughout their communities. This fall there is concern about both seasonal flu and H1N1 2009 flu. Because children do not have immunity to novel H1N1 virus, they have been most affected by it and are considered at high risk of infection. As the U.S. begins its fall and winter flu season, the Centers for Disease Control and Prevention (CDC) is concerned that the novel H1N1 virus may cause more illness, which may be severe in some cases.

What can the school do to protect students?

School personnel and faculty should **get vaccinated** against seasonal influenza and encourage others in contact with children - parents, siblings, teachers, secretaries and other support staff - to get vaccinated against seasonal flu as well. Getting vaccinated is especially important for those who take care of infants younger than 6 months of age. These babies are too young to be given flu vaccine.

**What are
some
everyday
precautions
I can take?**

Cover your nose and mouth with a tissue when you cough or sneeze. Wash your hands often with soap and water, especially after you cough or sneeze.

- Avoid touching your eyes, nose or mouth. Germs spread easily this way.
- Try to avoid close contact with sick people.
- While sick, stay home and limit contact with others to keep from infecting them.

**What should
the school do
if a student
gets the flu?**

If a student or teacher gets the flu, CDC recommends that they stay home from work or school and not go out into the community, unless to seek care from a medical provider, until they are fever-free for 24 hours. It is very important to keep kids home when they are sick.

**Is flu vaccine
recommended
for children in
schools?**

Yes. CDC and the Michigan Department of Community Health (MDCH) recommend that children 6 months of age and older receive seasonal flu vaccine to help them stay healthy. All children 6 months through 18 years of age are recommended to receive seasonal flu vaccine each and every year. H1N1 2009 flu vaccine is also recommended for school-aged children.

**Are flu
vaccines
safe?**

Yes, flu vaccines are very safe. It is important to understand that the chance of being harmed from this disease is much greater than any chance of being harmed from vaccination.

**Are there side
effects from
the flu
vaccines?**

Most adults and children have little or no problems after receiving flu vaccine. There may be soreness or redness where the shot was given. The nasal flu vaccine can sometimes cause a stuffy nose.

**Where can I
get more
information?**

Contact your health care provider or local health department and visit the following websites frequently:

Centers for Disease Control & Prevention • www.cdc.gov/flu
Michigan Dept of Community Health • www.michigan.gov/flu
Department of Health & Human Services • www.flu.gov
Childhood Influenza Coalition • www.preventchildhoodinfluenza.org
Families Fighting Flu • www.familiesfightingflu.org

NEW APPROVED Greetings - State Dept. of Health.

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Long distance Wave



Elbow Bump



Sanitary Gloves



The Bow



The Bump



Good Bless! Gary Varvel

